Amendments to the Specification:

Please replace the paragraph on page 5, lines 9-15 with the following amended paragraph:

FIGS. 1 and [[4]]5 respectively illustrate first and second embodiments 100, [[400]]500 of a relay. Common to both embodiments 100, [[400]]500 is an armature assembly 102, [[402]]511 (or some other means) which is movable between first and second positions with respect to first 302[[, 602]] and second 304[[, 604]] circuits. See FIGS. [[3 & 6]]3 & 7. By way of example, each of the relay embodiments 100, [[400]]500 shown herein shows the first circuit 302[[, 602]] to be a pass-through circuit and shows the second circuit 304[[, 604]] to be an attenuator circuit.

Please replace the paragraph on page 5, lines 16-21 with the following amended paragraph:

As shown in FIGS. 1 and 4, ~~When~~when the armature assembly 102, [[402]]511 of one of the relays is moved to its first position, current is allowed to flow through the relay's first circuit 302[[, 602]]. Likewise, when the armature assembly 102, [[402]]511 of one of the relays is moved to its second position, current is allowed to flow through the relay's second circuit 304[[, 604]]. In this manner, the first and second circuits 302[[/602,]] and 304[[/604]], are alternately closed to allow current flow therethrough.

Please replace the paragraph on page 5, lines 22-25 with the following amended paragraph:

A relay's armature assembly 102, [[402]]511 may be mounted for either rotational (pivotal) or translational (up/down or side/side) movement. However, by

way of example, the armature assemblies in FIGS. 1 and [[4]]5 are shown to be mounted for rotational movement.

Please replace the paragraph on page 5, line 26 through page 6, line 17 with the following amended paragraph:

In each of FIGS. 1 and [[4]]5, an electro-magnetic actuator assembly 106, 108, 110, 112 provides the force or forces which are needed to move an armature assembly 102, [[402]]511 between its first and second positions. The electro-magnetic actuator assembly 106-112 may be more or less integrated with the structure of an armature assembly 102, [[402]]511, and FIGS. 1 and 4 only show one preferred embodiment of an electro-magnetic actuator assembly 106-112. In the preferred embodiment of the electro-magnetic actuator assembly 106-112, the assembly's application or withdrawal of a single, attractive magnetic force provides for armature assembly movement. For example, refer to FIG. 1 wherein the electro-magnetic actuator assembly 106-112 comprises a core 110 and coil 108 which are mounted between two magnetic poles 106, 112. When a voltage is applied to the ends 107, 109 of the coil 108, the core 110 causes a magnetic field to be formed between the two magnetic poles 106, 112, and thereby causes an attractive magnetic force to be exerted on one end of the armature assembly 102, thereby causing the armature assembly 102 to rotate in a first direction 114 (i.e., counter-clockwise in FIG. 1). When the voltage is withdrawn from the coil 108, the magnetic field formed between the two magnetic poles 106, 112 dissipates, and a biasing spring 118 returns the armature assembly 102 to its first position (i.e., the armature assembly 102 moves in direction 116).

Please replace the paragraph on page 6, line 25 through page 7, line 2 with the following amended paragraph:

Each of the relay embodiments 100, [[400]]500 shown herein also comprises a means 158, 504 for grounding the first circuit 302[[/602]] while the second circuit 304[[/604]] is closed. In this manner, little if any signal noise is transferred from the first circuit 302[[, 602]] to the second circuit 304[[, 604]] while the second circuit 304[[, 604]] is in use.

Please replace the paragraph on page 7, lines 3-5 with the following amended paragraph:

Having briefly discussed some of the features which are common to the relay embodiments 100, [[400]]500 illustrated in FIGS. 1 and [[4]]5, each of the relays 100, [[400]]500 will now be described in greater detail.

Please replace the paragraph on page 8, line 23 through page 9, line 12 with the following amended paragraph:

As can be seen in FIGS. 1 & 2, an additional pair of contacts 154, 156 is coupled to the relay's signal terminals 124, 126 (FIG. 2). The contacts 154, 156 are electrically insulated from the header 132 by, for example, areas 160, 162 of the Kovar header 132 which are left unplated (FIG. 1). Respectively coupled to this additional pair of contacts 154, 156 is a pair of leaf springs 150, 152. The free ends of the leaf springs 150, 152 extend into the gaps formed between the respective ones of the pass-through and attenuator circuit contacts 134/136, 135/137 ~~(FIG. 2)~~(FIGS. 2 and 3). The leaf springs 150, 152 are biased so that their free ends rest against respective ones of the pass-through circuit contacts 136, 137. Thus, while at rest, the leaf springs 150, 152 allow current to flow from one to the other of the relay's signal terminals 124, 126 via the pass-through circuit 302. When an armature assembly 102 (to be described) applies downward pressure to the leaf springs 150, 152, the leaf springs 150, 152 break electrical contact with the pass-through circuit's contacts 136, 137 and are forced to make electrical contact with the attenuator circuit's

contacts 134, 135. In this position, the leaf springs 150, 152 allow current to flow from one to the other of the relay's signal terminals 124, 126 via the attenuator circuit 304.

Please replace the paragraph on page 15, lines 3-15 with the following amended paragraph:

FIG. 5 illustrates a third relay embodiment 500. Like the first relay 100, the third relay 500 is housed within a metallic structure comprising a base plate 120 and a cover 122. Protruding through the base plate 120 are first and second pairs of conductive terminals 124/126, 128/130, each pair of which is insulated from the metallic base plate 120. The conductive terminals 124, 126 of the first pair are signal terminals, and are alternately coupled to one another via first and second circuits 302, 304 (FIG. 7) which are housed within the relay [[100]]<u>500</u>. The conductive terminals 128, 130 of the second pair are control terminals, and are provided for the purpose of controlling an electro-magnetic actuator assembly 106-112 which is housed within the relay [[100]]<u>500</u>. The presence of a voltage on the control terminals 128, 130 determines the state of the electro-magnetic actuator assembly 106-112, which in turn determines which of the two circuits 302, 304 mounted within the relay [[100]]<u>500</u> will be connected between the signal terminals 124, 126.

Please replace the paragraph on page 15, lines 16-20 with the following amended paragraph:

A header 132 is mounted (e.g., welded) within the relay housing 120, 122 on top of the base plate 120. The header 132 serves to give the relay [[100]]<u>500</u> more rigidity, and is preferably formed of a metallic material which is grounded to the relay housing 120, 122. By way of example, the header 132 may comprise gold plated Kovar.

Please replace the paragraph on page 16, line 15 through page 17, line 3 with the following amended paragraph:

As can be seen in FIG. 5, an additional pair of contacts 154, 156 is coupled to the relay's signal terminals 124, 126 (FIG. 5). The contacts 154, 156 are electrically insulated from the header 132 by, for example, areas 160, 162 of the Kovar header 132 which are left unplated (FIG. 5). Respectively coupled to this additional pair of contacts 154, 156 is a pair of leaf springs 150, 152. The free ends of the leaf springs 150, 152 extend into the gaps formed between the respective ones of the pass-through and attenuator circuit contacts 134/136, 135/137 (FIG. 7). The leaf springs 150, 152 are biased so that their free ends rest against respective ones of the pass-through circuit contacts 136, 137. Thus, while at rest, the leaf springs 150, 152 allow current to flow from one to the other of the relay's signal terminals 124, 126 via the pass-through circuit 302. When an armature assembly [[102]]<u>511</u> (to be described) applies downward pressure to the leaf springs 150, 152, the leaf springs 150, 152 break electrical contact with the pass-through circuit's contacts 136, 137 and are forced to make electrical contact with the attenuator circuit's contacts 134, 135. In this position, the leaf springs 150, 152 allow current to flow from one to the other of the relay's signal terminals 124, 126 via the attenuator circuit 304.

Please replace the paragraph on page 17, lines 4-16 with the following amended paragraph:

The electro-magnetic actuator assembly 106-112 which is mounted within the relay housing 120, 122 comprises two magnetic poles 106, 112, a coil 108, and a core 110. The coil 108 is slipped over the core 110, and the core 110 and coil 108 are then mounted between the two magnetic poles 106, 112. The first magnetic pole 106 is then used to mount the electro-magnetic actuator assembly 106-112 to the header 132 such that the second magnetic pole 112 is suspended over the header 132 and in back of the afore-mentioned substrate 104. The two ends 107, 109 of the

coil 108 are respectively and electrically coupled to the relay's control terminals 128, 130. When a voltage is applied to the control terminals 128, 130, current flows through the coil 108 and an electromagnetic force flows through the core 110. The electromagnetic force in turn polarizes the two magnetic poles 106, 112 and causes the lower portion of the first magnetic pole to exert an attractive magnetic force on one end of the relay's armature assembly [[102]]511.

Please replace the paragraph on page 17, lines 17-23 with the following amended paragraph:

The armature assembly [[102]]511 comprises a main body 148 and a number of actuator arms 101, 103, 502 (FIGS. 5 & 6). The main body 148 of the armature assembly [[102]]511 is an essentially flat structure to which the number of actuator arms 101, 103, 502 and two pivot pins 138, 140 are attached. The actuator arms 101, 103, 502 are preferably formed of a strong, non-conductive material such as plastic. The pivot pins 138, 140 may fit into indents 142, 144, holes or crevices formed in the underside of the second magnetic pole 112.

Please replace the paragraph on page 17, line 24 through page 18, line 6 with the following amended paragraph:

A biasing spring 118 is mounted on the header 132. The biasing spring 118 applies pressure to the underside of the armature assembly [[102]]511 so that the armature assembly [[102]]511 assumes its first position when the electro-magnetic actuator assembly 106-112 is not energized. A stop 146 is also mounted on the header 132. The stop 146 prevents the spring 118 from over-biasing the armature assembly [[102]]511. Other means of biasing the armature assembly [[102]]511 are contemplated, but not preferred. For example, the electro-magnetic actuator assembly 106-112 could bias the armature assembly [[102]]511 to its first position by repelling it, and then move the armature assembly [[102]]511 to its second position

by attracting it. Or for example, the armature assembly [[102]]511 could be biased to its first position via an unequal weight distribution.

Please replace the paragraph on page 18, lines 7-18 with the following amended paragraph:

Two of the actuator arms 101, 103 which extend from the armature assembly [[102]]511 are positioned over the afore-mentioned pair of leaf springs 150, 152. When the armature assembly [[102]]511 is at rest in its first position (i.e., when no voltage is applied to the electro-magnetic actuator assembly 106-112), the actuator arms 101, 103 apply no pressure to the leaf springs 150, 152, and the pass-through circuit 302 is coupled between the relay's signal terminals 124, 126. However, when a voltage is applied to the electro-magnetic actuator assembly 106-112 (i.e., via the relay's control terminals 128, 130), the armature assembly [[102]]511 moves to its second position, and the actuator arms 101, 103 apply downward pressure to the leaf springs 150, 152. In this position, the leaf springs 150, 152 are forced to make electrical contact with the attenuator circuit's contacts 134, 135, and the attenuator circuit 304 is coupled between the relay's signal terminals 124, 126.

Please replace the paragraph on page 18, line 19 through page 19, line 2 with the following amended paragraph:

The third of the actuator arms 502 is positioned over a biased conductor (such as a third leaf spring 504). This third leaf spring 504 is coupled (e.g., welded) to a cylindrical, metallic contact 506 which is, in turn, welded to a pad 508 formed on the substrate 104. The pad 508 is coupled to ground (as ~~we~~ will be described in greater detail below). The opposite end of the leaf spring is suspended over an additional cylindrical, metallic contact 510. This additional contact 510 is welded to the pass-through circuit 302. When the armature assembly [[102]]511 is at rest, the third leaf spring 504 is biased not to couple the pass-through circuit 302 to ground (i.e., the leaf

spring 504 is biased in a "disconnect" position). However, as the armature assembly [[102]]511 moves to its second position, the third actuator arm 502 presses on the third leaf spring 504 and causes the leaf spring 504 to couple the pass-through circuit 302 to ground.

Please replace the paragraph on page 21, lines 17-18 with the following amended paragraph:

As previously mentioned, an armature assembly 102, [[1102]]511 need not move in a pivotal fashion, and could alternately move in a translational fashion.